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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,545	01/31/2001	Leslie M. Brooks	TAN-2-1472.01.US	3228

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EXAMINER	
PHILLIPS, HASSAN A	
ART UNIT	**PAPER NUMBER**
2151	
MAIL DATE	**DELIVERY MODE**
11/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/774,545	BROOKS ET AL.	
	Examiner	Art Unit	
	Hassan Phillips	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to communications filed May 24, 2007.

Claim Objections

2. Claim 18 is objected to because of the following informalities: the amendments made to the claim make the claim language unclear. In the last three lines of the claim, it appears as though the "given protocol data unit" includes a table. Examiner knows this is incorrect as the claim indicated "the selector" includes a table before the claim was amended. In order to advance prosecution, examiner has interpreted the claim as best understood. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed May 24, 2007 have been fully considered but they are not persuasive. Applicant argued: In Gillon, there is no teaching or suggestion of tracking of prior data packets to enable the "determining if a given protocol data unit is associated with a previously filtered protocol data unit" as defined by claim 1. Similarly, the prior art does not teach or suggest the claimed selection of "the data link compression for the previously filtered protocol data unit" since the prior art does not teach tracking type of data link compression selected for previously filtered protocol data units. Furthermore, with regards to claims 18, 25, 28, 29 and 32, Gillon fails to teach or suggest filtering and compression selection based on what occurred to a

previously filtered PDU as defined in each of the pending claims. Examiner respectfully disagrees with applicant's assertions.

4. With regards to applicant's remarks, as indicated in previous actions, examiner maintains Gillon teaches applicant's claimed "determining if a given protocol data unit is associated with a previously filtered protocol data unit" as defined by claim 1 at least where Gillon teaches examining the protocol data unit to determine whether data can be compressed, (Gillon col. 5, lines 48-57). In this passage of Gillon, a protocol data unit indicating HTML data is implicitly determined to be associated with a previous filtered protocol data unit that also indicated HTML data. This is further evident where Gillon teaches, "the header of the data or the file extension is examined to determine the data type. If the data type matches a **predetermined** type...the data is determined to be compressible" (Gillon, col. 7, lines 6-9). Still further, Gillon teaches using compression algorithms such as LZP, (Gillon, col. 5, lines 33-38). As was well known in the art, using such a dictionary-based compression algorithm provides for determining if a given protocol data unit is associated with a previously filtered protocol data unit since the algorithm looks for repetitive data previously transmitted, (see applicant's disclosure, pg. 1, lines 1-19). For these same reasons, examiner maintains Gillon also teaches applicant's claimed selection of "the data link compression for the previously filtered protocol data unit" and filtering and compression selection based on what occurred to a previously filtered PDU as defined in each of the pending claims.

5. Accordingly the references supplied by the Examiner in the previous office action covers the claimed limitations. The rejections are thus sustained. Applicant is requested to review the prior art of record for further consideration.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 6, 7, 9-14, 18-29, 31, 32, are rejected under 35 U.S.C. 102(b) as being anticipated by Gillon.

8. In considering claims 1 and 13, Gillon discloses an apparatus, and a method for compressing a data stream comprising: filtering protocol-specific header and control information of a protocol data unit (PDU) to determine compressibility of the contents of said protocol data unit including determining if a given protocol data unit is associated with a previously filtered protocol data unit, (col. 5, lines 48-50); based on the result of filtering, selecting a state of data link compression for the PDU to optimize compression efficiency such that if the given protocol data unit is associated with a previously filtered protocol data unit, the data link compression for the previously filtered protocol data unit is selected, (col. 5, lines 52-56); and associating the selected state of data link

compression with the protocol data unit to control a compression process adapted to compress contents of protocol data units, (col. 2, lines 21-31).

9. In considering claims 2, 14, and 26, the method of Gillon teaches compressing the contents of the PDU as a function of the state of data link compression. See col. 5, lines 52-56.

10. In considering claims 6, it is inherent in the method taught by Gillon that a table is accessed having entries with specific media types deemed compression limited. See col. 5, lines 39-50.

11. In considering claims 7 and 19, it is also inherent in the method taught by Gillon that filtering includes associating individual PDU's to specific media types. See col. 5, lines 48-56.

12. In considering claims 9 and 21, it is inherent in the method taught by Gillon that a table is accessed including information of previously filtered PDU's, when determining if a given PDU is associated with a previously filtered PDU. See col. 5, lines 48-56.

13. In considering claims 10 and 22, it is also inherent in the method taught by Gillon that data link compression is disabled if the compressibility of the contents of the PDU is determined to be low. See col. 5, lines 48-56.

14. In considering claims 11 and 23, the method of Gillon teaches enabling data link compression if the compressibility of the contents of the PDU is determined to be high. See col. 5, lines 48-56.

15. In considering claims 12 and 24, the method of Gillon further teaches utilizing tables initialized with patterns expected to be contained in the content of the PDU, and used by the data link compression. See col. 5, lines 33-38.

16. In considering claims 18 and 32, it is inherent in the apparatus and method taught by Gillon that the filter is configured to determine compressibility of the contents of the given protocol data unit by determining the type of data of the given protocol data unit where the given protocol data unit is not associated with a previously filtered protocol data unit, (col. 5, lines 33-38, col. 5, lines 48-57, and col. 7, lines 6-9); and the selector is configured to select the state of data link compression for the given protocol data unit based on the determined type of data of the given protocol data unit if the given protocol data unit is not associated with a previously filtered protocol data unit, (col. 5, lines 33-38, col. 5, lines 48-57, and col. 7, lines 6-9); wherein the selector

includes a table configured to store entries with specific media types deemed compression limited, (col. 5, lines 39-50).

17. In considering claim 20, the apparatus of Gillon teaches a tracking unit to determine if a given PDU is associated with a previously filtered PDU. See col. 5, lines 48-57.

18. In considering claims 25 and 28, Gillon discloses a computer-readable medium, and an apparatus for optimizing compression efficiency, comprising: means for filtering protocol-specific header and control information of a protocol data unit (PDU) to determine compressibility of the contents of said protocol data unit including: means for determining if a given protocol data unit is associated with a previously filtered protocol data unit, (col. 5, lines 48-50); and means for determining the type of data of the given protocol data unit where the given protocol data unit is not associated with a previously filtered protocol data unit, (col. 5, lines 33-38, col. 5, lines 48-57, and col. 7, lines 6-9); means for selecting the state of data link compression for said protocol data unit based on the result of filtering to optimize compression efficiency such that: if the given protocol data unit is associated with a previously filtered protocol data unit, the data link compression for the previously filtered protocol data unit is selected, (col. 5, lines 52-56); and otherwise the state of data link compression is selected based on the determined type of data of the given protocol data unit, (col. 5, lines 33-38, col. 5, lines 48-57, and col. 7, lines 6-9); and means for associating the selected state of data link

compression with the protocol data unit to control a compression process adapted to compress contents of protocol data units, (col. 2, lines 21-31).

19. In considering claim 27, Gillon further discloses decompressing the compressed contents of the PDU, col. 5, lines 13-17.

20. In considering claim 29, Gillon discloses a method for optimizing compression efficiency comprising: without changes to a subordinate protocol layer or changes to the higher protocol layers carried by a given protocol data unit, selectively controlling the state of a compression algorithm based on a protocol-specific header and control information of the given protocol data unit or compressibility determination of a protocol data unit associated with the given protocol data unit to determine compressibility for compressing data transported by the given protocol data unit across a connection in the data communication network to optimize the compression efficiency such that if a compressibility determination of a protocol data unit associated with the given protocol data unit is provided, the same compressibility determination is made for the given protocol data and if a compressibility determination of a protocol data unit associated with the given protocol data unit is not provided, the compressibility determination is made for the given protocol data based on the protocol-specific header and control information, (col. 5, lines 33-38, col. 5, lines 48-57, and col. 7, lines 6-9).

21. In considering claim 31, Gillon teaches controlling the state of compression by analyzing protocol-specific header and control information of the PDU'S of the higher protocol layers. See col. 5, lines 39-50.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. Claims 3-5, 15-17, 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillon in view of Christensen.

24. In considering claims 3 and 15, although the disclosed method of Gillon shows substantial features of the claimed invention, it fails to expressly disclose: indicating whether the contents of the PDU have been compressed or not.

Nevertheless, in a similar field of endeavor Christensen teaches a method for adaptive compression comprising: applying an indication in a compressed PDU to indicate whether the contents of the PDU have been compressed, (col. 5, lines 54-61).

Given the teachings of Christensen, it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to also teach a means of indicating whether contents of a compressed PDU have been compressed by applying

an indication in, or with, the compressed PDU. This would have provided an efficient means for the device assigned to decompress the PDU to determine whether decompression is necessary or not, Christensen, col. 5, lines 49-53.

25. In considering claims 4 and 16, Gillon further discloses decompressing the compressed contents of the PDU, col. 5, lines 13-17.

26. In considering claims 5 and 17, the combined methods taught by Gillon and Christensen with respect to claims 3, 4, 15, and 16, provide a means for decompressing the compressed contents of a PDU in a pre-negotiated manner based on the indication of whether the contents of the PDU have been compressed.

27. In considering claim 30, although the teachings of Gillon show substantial features of the claimed invention, they fail to expressly show: selectively disabling a compression process.

Nevertheless, it was well known in the art at the time of the present invention that having the ability to enable a compression process to optimize compression efficiency also suggests having the ability to disable a compression process to optimize compression efficiency. This is better exemplified in the teachings of Christensen. More specifically, Christen teaches: enabling or disabling a compression process adapted to compress protocol data units in an adaptive manner for optimizing compression efficiency, (col. 2, lines 1-18).

Thus, if not implicit in the teachings of Gillon, given the teachings of Christensen it would have been obvious to one of ordinary skill in the art to modify the teachings of Gillon to show selectively disabling the compression process. This would have clearly demonstrated advantages for efficiently utilizing a compression algorithm only when needed, Christensen, col. 2, lines 12-18.

Conclusion

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is 571-272-3940. The examiner can normally be reached on Mon-Fri (8am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HP/
11/20/07

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